

FOREST INSECT AND DISEASE MANAGEMENT UNIT
U.S. FOREST SERVICE
DORAVILLE, GEORGIA

REPORT OF AERIAL DETECTION SURVEY

LAND OWNERSHIP OR SURVEY AREA: Cumberland Gap National Historical
Park, National Park Service,
U.S. Department of Interior

STATES: Kentucky, Virginia, Tennessee

COUNTIES: Kentucky: Bell, Harland
Virginia: Lee
Tennessee: Clairborne

AREA WITHIN SURVEY BOUNDARY: 21,000 acres

DATE SURVEYED: 1/30/78

PERCENT COVERAGE: 100%

AIRCRAFT: Cessna 182

CREW: W. A. Carothers, C. W. Dull

REPORT PREPARED BY: C. W. Dull

INTRODUCTION: An aerial survey conducted on the Cumberland Gap National Historical Park in August 1975 revealed 30 spots of red and fading pines with an average of 130 trees per spot. A subsequent aerial survey in October 1976 revealed 15 spots of red and fading pines with an average of 85 trees per spot (Figures 3 and 4).

SURVEY OBJECTIVES: The purpose of the current aerial survey was to determine the location of southern pine beetle activity on the Cumberland Gap National Historical Park.

SURVEY RESULTS

Dead pine trees were observed along Skyland Road on the Pinnacle Mountain. A total of six red-topped pines in five different areas were observed. Recently killed pine trees with characteristic fading or off-color foliage were not seen. Areas of red-topped pines on adjacent lands were not observed. The locations of the red-topped pines detected on this survey are plotted in Figures 1 and 2.

CONCLUSIONS

The results of this aerial survey indicate that pine bark beetle activity on the Cumberland Gap National Historical Park is at a low level.

The results of the current aerial survey indicate that the activity of the southern pine beetle has continued to decrease in the Park as well as on adjacent lands. The red-topped pines detected on the current aerial survey were located adjacent to high visitor use areas where they may affect aesthetic values and create the potential hazard of standing dead trees. Southern pine beetle infested tree crowns do not change color readily in the winter. Therefore a ground check of the spots observed should be made to confirm the results of the aerial survey.

For any additional information, Contact

Forest Insect & Disease Management Unit, S&PF
USFS - Southeastern Area

Northgate Office Park, Room 2103
3620 Interstate 85, N. E.
Doraville, Ga. 30340
Telephone: 404-221-4796

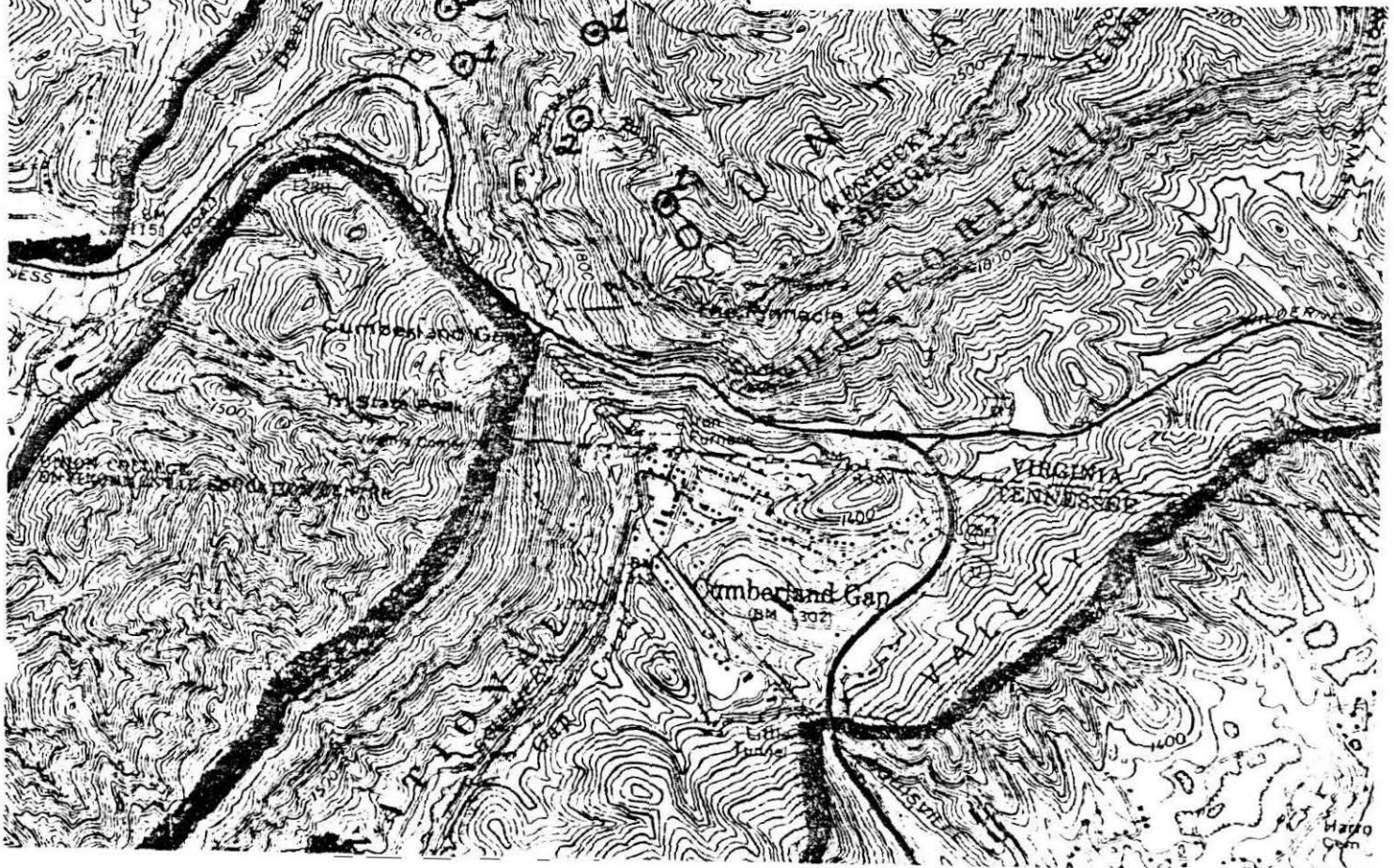
or P. O. Box 5895
Asheville, N. C. 28802
Telephone: 704-258-2850
Ext. 625

Aircraft: Cessna 182

Suspect spot

Park Boundary

This is a detailed black and white topographic map of a mountainous region. The map features numerous contour lines indicating elevation, with labels such as 'Hollow', 'Dark Ridge', 'Cumberland Gap', and 'M. State Gap'. A prominent road or path is shown winding through the terrain, and several small circular markers are visible. The map is oriented with North at the top.



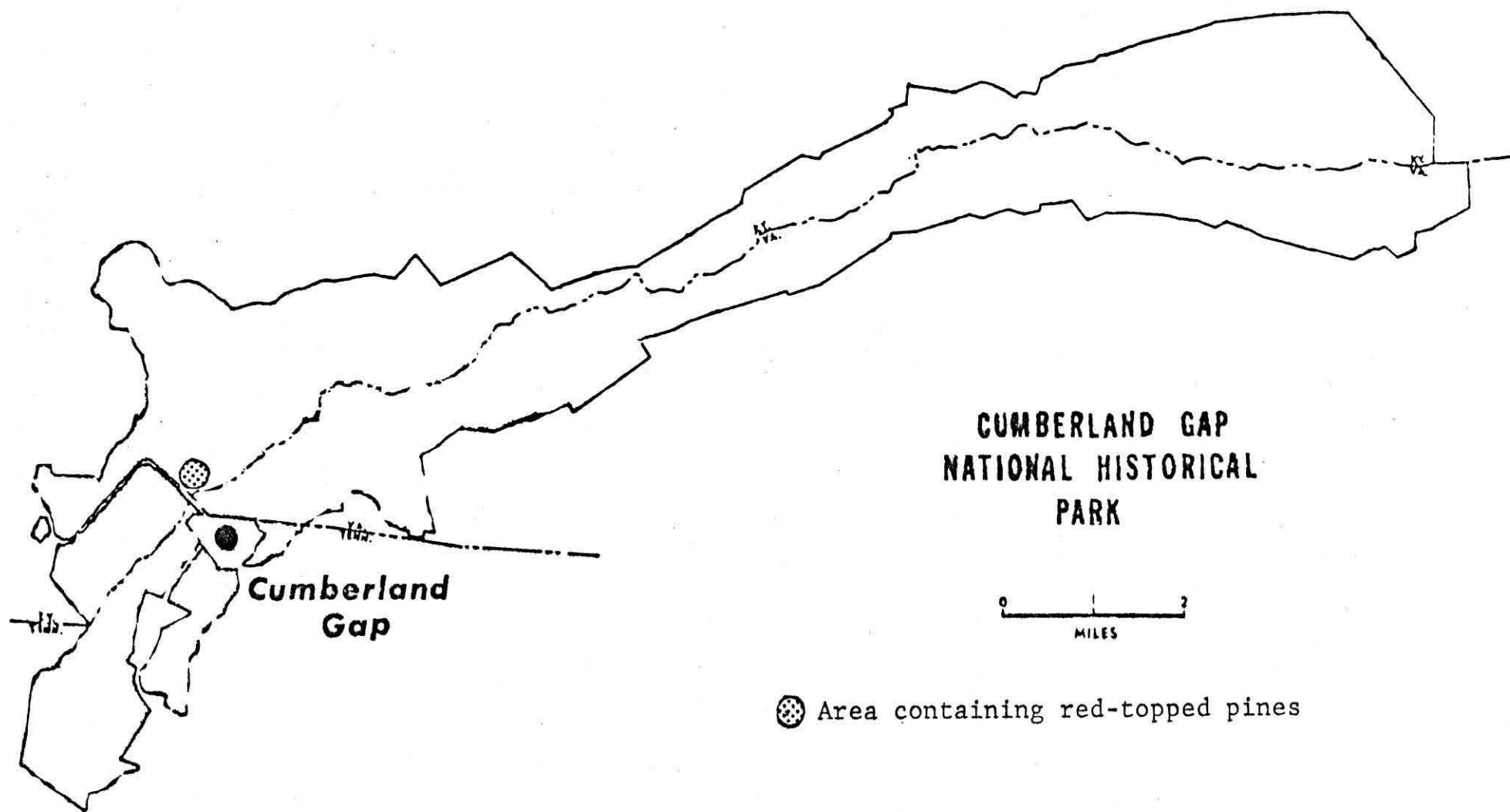


Fig. 2 Results of Aerial Survey, January 30, 1978.

Fig. 3

Survey Area: Cumberland Gap
National Historical Park

Survey Date: 10/4/76

Survey Crew: McDowell

Percent coverage: 100%

Aircraft: Cessna 182

⊙ Suspect spot

--- Park Boundary

Each spot will have the approxi-
mate number of red
trees marked on the map

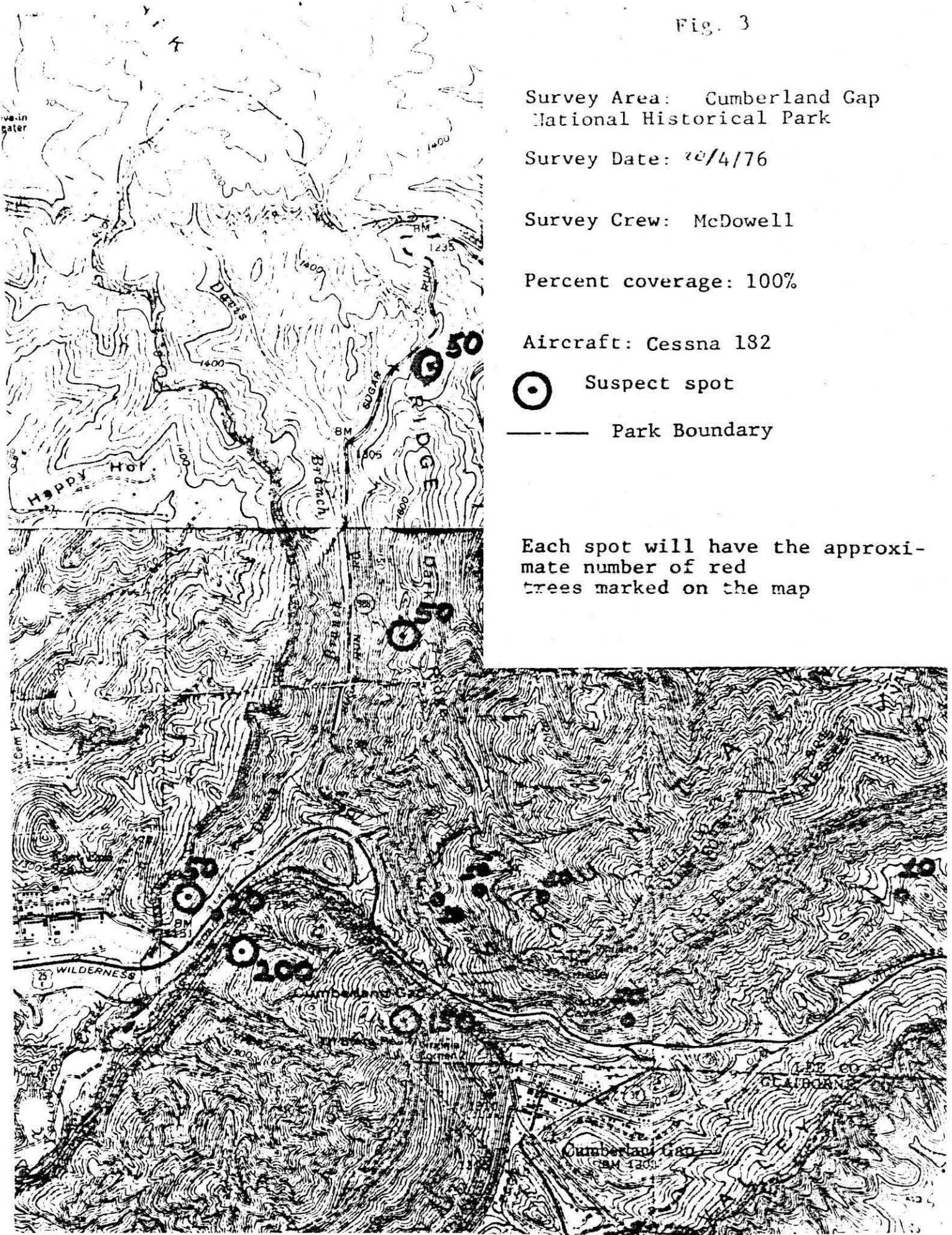


Fig. 4

Survey Area: Cumberland Gap
National Historical Park

Survey Date: 10/4/76

Survey Crew: McDowell

Percent coverage: 100%

Aircraft: Cessna 182

⊙ Suspect spot

--- Park Boundary

Each spot will have the approxi-
mate number of red
trees marked on the map

